

EX

<b>Notice of Allowability</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/692,498	IACOB, ALIN THEODOR	
	<b>Examiner</b>	<b>Art Unit</b>	
	Brian Young	2819	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--**  
 All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to the amendment filed 2/28/05.
2. ☒ The allowed claim(s) is/are 1,3-12 and 15-30.
3. ☒ The drawings filed on 24 October 2003 are accepted by the Examiner.
4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) ☐ All    b) ☐ Some\*    c) ☐ None    of the:
    1. ☐ Certified copies of the priority documents have been received.
    2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
    3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.  
**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
  6. ☐ CORRECTED DRAWINGS ( as "replacement sheets") must be submitted.
    - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review ( PTO-948) attached
      - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
    - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).**
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

<b>Attachment(s)</b>	
1. <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) 3. <input checked="" type="checkbox"/> Information Disclosure Statements (PTO-1449 or PTO/SB/08), Paper No./Mail Date <u>10/24/03</u> 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit of Biological Material	5. <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) 6. <input type="checkbox"/> Interview Summary (PTO-413), Paper No./Mail Date _____ 7. <input type="checkbox"/> Examiner's Amendment/Comment 8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance 9. <input type="checkbox"/> Other _____

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1. Claims 1,3-12 and 15-30 are allowed.
2. The following is an examiner's statement of reasons for allowance: a system and method for determining when an external load is coupled to a digital-to-analog converter (DAC) wherein a load detector circuit includes a video DAC, an output circuit, a dumping circuit, and a determining circuit and the video DAC comprises a differential architecture including a first output and a second output working in opposite phase and the first DAC output is coupled to the output circuit, which drives the external load. The second DAC output is coupled to a dumping circuit, and is configured such that the dumping circuit is balanced with the output circuit when the external load is present. A determining circuit examines the two outputs of the DAC to determine if the dumping circuit is balanced with the output circuit, and thus if the external load is present. These features have not been shown in the prior art load detection circuits of record.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

3. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Yang et al disclose an analog-to-digital conversion scheme that allows the conversion of a small dynamic range analog signal into a floating-point, digital representation with a larger dynamic range.

A monotonically changing analog signal is reset to a reference value at time  $t=0$ .

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The analog signal is then sub-converted by an analog-to-digital converter with maximum input signal level  $S_{\text{sub.s}}$  to corresponding digital representations at several sub-conversion times  $t=T_{\text{sub.2}}$  >  $T_{\text{sub.1}}$   $t=T_{\text{sub.3}}$  >  $T_{\text{sub.2}}$ , . . .  $t=T_{\text{sub.M}}$  >  $T_{\text{sub.M-1}}$ , where  $T_{\text{sub.M}} \leq T$ . These digital representations are then suitably combined to produce a cumulative, floating-point digital representation which accurately represents the analog signal even if the analog signal has a value greater than  $S_{\text{sub.s}}$  at time  $t=T$ .

Zhang et al disclose a self-calibrated cell (and corresponding operation) is provided that receives a reference parameter (e.g., current, voltage, etc.) for storage in the cell and for supplying to a load.

The individual cell is controlled to operate in different states or modes: either a redundant mode or a supplying mode. In the redundant mode, the reference parameter is stored in the current cell during a calibration phase or mode, and the stored reference parameter is dumped or otherwise transferred, preferably to ground, during a dumping state or mode. In the supplying mode, the current cell transfers or supplies the stored reference parameter to the load. The individual cell is controlled to operate in its dumping state both before the cell enters the calibration mode and also at the same time that the cell is switched from the calibration mode to the supplying mode. In accordance with a preferred embodiment, the individual cells may be employed in

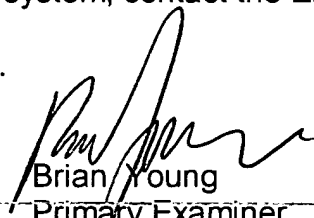
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a cell array of a converter (e.g., digital-to-analog converter). All of the cells in the array may individually be placed in a redundant mode in succession, while the remaining cells are in a supplying mode.

4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Brian Young whose telephone number is 571-272-1816. The examiner can normally be reached on Mon-Fri 7:30-4:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mike Tokar can be reached on 571-272-1812. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Brian Young  
Primary Examiner  
Art Unit 2819

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